

ADDITIONAL REMARKS TO THE NEW ZEALAND PSEUDOSCORPIONIDEA

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Abstract. Species are recorded from New Zealand, nearby islands, and the subantarctic Antipodes Islands. New species of *Nesidiochernes* and *Apatochernes* are described; *Maorichthonius mortenseni* Chamb. is redescribed.

Some small collections of Pseudoscorpionidea from New Zealand, White Island, Three Kings Islands, and the subantarctic Antipodes Islands, submitted to me by Mr. K. A. J. Wise, Auckland Museum, and Dr. Malcolm Luxton, Soil Bureau, Lower Hutt, contain the following species.

NEW ZEALAND

***Austrochthonius inversus* Beier**

Mokohinau Is.: forest, ex leaf mould, 23.VIII.1935, R. A. Harrison (new record).

***Maorichthonius mortenseni* Chamberlin**

Leigh (see re-description below).

***Euryolpium (Antiolpium) zealandiense* (Hoff.)**

Mokohinau Is.: forest, ex leaf mould, 23.VIII.1935, R. A. Harrison (new record).

***Synsphyronus (Maorigarypus) melanochelatus* (Chamberlin)**

Taupo Co.: Taupo, in house, 14.III.1962, J. W. Dee.

Bay of Islands Co.: Paihia, —.V.1953, W. Delph.

***Lamprochernes savignyi* (Simon)**

Waipa Co.: Te Awamutu, phoretic on fly, 16.IV.1958, B. Eversfield (new record).

***Thalassochernes pallipes* (White)**

Whangaroa Co.: Tauranga Bay, Butterfly valley, nikau leaf litter debris, 28.IX.1966, Wise.

Whangarei Co.: Hikurangi, Waro Res., beaten from *Freycinetia*, 10.VIII.1966, Wise.

Waitemata Co.: Huia, —X.1947, Nicholls; Titirangi, Wood Bay, 1958, J. Pollard.

***Nesidiochernes scutulatus* n.sp.**

Hamilton (see description below).

***Apatochernes obrieni* Beier**

Mokohinau Is.: forest, ex leaf mould, 23.VIII.1935, R. A. Harrison (new record).

Apatochernes cheliferoides Beier

Hobson Co.: North Wairoa, Glinks Gully, —XII.1956, Mrs. E. Mellor.

Rodney Co.: N. of Waiwera, forest remnant, 2.IX.1966, Wise.

Waitemata Co.: Cornwallis, under sack on beach, 30.I.1967, S. Charteris.

Auckland: Epsom, in house, 22.VII.1952, B. W. Knight.

Coromandel Co.: Whangapoua, —.I.1955, M. McCallum.

Buller Co.: N. Karamea, 10.III.1936, C. E. Clarke collection.

WHITE ISLAND

Austrochthonius inversus Beier

Ohauora: many specimens, 6.XII.1966, Wise (new record).

Ideobisium peregrinum Chamberlin

Ohauora: several specimens, 6.XII.1966, Wise (new record).

Euryolpium (Antiolpium) zealandiense (Hoff.)

Ohauora: several specimens, 6.XII.1966, Wise (new record).

THREE KINGS ISLANDS

Apatochernes turbotti n.sp.

South-West I. (see description below).

Philomaoria novazealandica Chamberlin

Great I.: —.XI. —.XII.1945, Arbutus Exped.; Depot Valley, sedge litter, 20.IV.1946, E. G. Turbott; N.W. Bay, very dry under ngaio and karaka at side of *Placostylus bollonsi caperatus* colony; litter sample 1, 15.I.1951, Turbott; Tasman Valley, on rock, 31.XII.1952, J. S. Edwards; in ngaio seeds, 20.XII.1952, Edwards; the saddle, beaten ex kanuka scrub, 2.I.1953, Edwards; sweepings from *Colensoa*, quadrat 2, 1.I.1953, Edwards; in camp, on wood, 5.I.1953, Edwards.

ANTIPODES ISLANDS

Apatochernes antarcticus Beier

Above Ringdove Bay: beating tussock of plateau, 6.XI.1950, E. G. Turbott (new record).

DESCRIPTIONS

Maorichthonius mortenseni Chamberlin (Fig. 1)

Maorichthonius mortenseni Chamberlin, 1925, *Vidensk. Medd. Dansk naturh. Foren.* 81: 335, Fig. 1.

Carapace, chelicerae, and pedipalps rather dark brown, abdominal tergites paler brownish. Carapace a little broader than long, slightly narrowed basally, smooth but weakly reticulate in the hind corners, with 18 rather strong bristles and a short pre-ocular bristle, the two median anterior border bristles close together, the 4 posterior border bristles of same length; epistomal process large, very prominent, bluntly triangular, scarcely denticulate. Anterior eyes vaulted, posterior ones flat. Chaetotaxy of abdominal tergites: ♂ 6-7-8-17-18-19-20-20-18-10-4; ♀ 6-6-8-12-14-16-17-18-16-12-4; the bristles are all together long and strong, and stand in a somewhat irregular transverse row; the lateral bristles of ultimate tergite are long tactile bristles. Abdominal sternites each with a row of mostly 15 bristles, which are a little shorter than the tergal ones. Chelicerae big, longer than carapace, with 5 palm-bristles, the



FIG. 1—*Maorichthonius mortenseni* Chamb. ♀, right chela laterally.

basal bristle short, the subbasal one about half as long as *LS*. Fixed cheliceral finger with few blunt and spaced teeth, movable one finely denticulate, with flat spinneret tubercle in both sexes. Pedipalps relatively short. Femur a little longer than carapace. Chela 4.5 times (♀) to 5 times (♂), hand 1.8 times (♀) to 2 times (♂) longer than broad, with a single moderately long pike-bristle medially at the base of the fingers; tactile setae *ib* and *isb* proximad of the middle. Fingers 1.5 times (♀) to 1.6 times (♂) longer than hand, densely serrate-dentate, the teeth relatively small, very small in the proximal half of finger; tactile seta *eb* distad from *esb*, *st* of movable finger $2\frac{1}{2}$ times at least farther from *sb* than from *t*, *sb* a little closer to *st* than to *b*. Medial corner of coxa of first leg with a long and thick digitate process without bristles. Coxa of second leg medioorally instead of coxal spines with several short rows of 5 to 6 finest microchaetes, which stand partly on chitinous ridges (overlooked by Chamberlin). Intercostal tubercle absent. Legs very strongly bristly, femora with a row of long dorsal bristles. Male genital operculum orally with 4 strong bristles mutually, caudally with 4 rather fine marginal bristles and 8 strong lateral bristles, and with 4 internal bristles in large areoles.

Body, length ♂ 1.6 mm, ♀ 1.8 mm; carapace, length ♂ 0.51 mm, ♀ 0.50 mm, breadth ♂ 0.56 mm, ♀ 0.55 mm; pedipalps: femur, length ♂ 0.56 mm, ♀ 0.52 mm; hand, length ♂ 0.33 mm, breadth ♂ 0.16 mm, ♀ 0.18 mm; fingers, length ♂ 0.52 mm, ♀ 0.50 mm.

MATERIAL. 1 ♂, 4 ♀ ♀, 1 tritonymph, 1 deutonymph, New Zealand, North Island, Leigh, from rock crevices on the seashore, *Chamaesiphon columna* zone, 23.II.1967, M. Luxton.

The measurements of pedipalps given by Chamberlin, 1925, are erroneously about twice as in reality. I thank Prof. David R. Malcolm, Portland, for that confirmation on the base of the paratypes.

Maorichthonius is related to the genus *Morikawia* but differs from it principally by the plurisetose abdominal tergites and by the presence of several rows of finest microchaetes instead of coxal spines.

Nesidiochernes scutulatus n.sp. (Fig. 2)

Carapace a little longer than broad posteriorly, very densely and mosaic-shaped granulate, the granulation finer in the middle of the metazona, coarsely but shallowly laterally; the carapace is dark brown anteriorly and laterally, paler beside the middle of pro- and metazona, whitish with a dark median spot in the metazona; both transverse furrows well developed, granulate, the subbasal one not sharply bordered

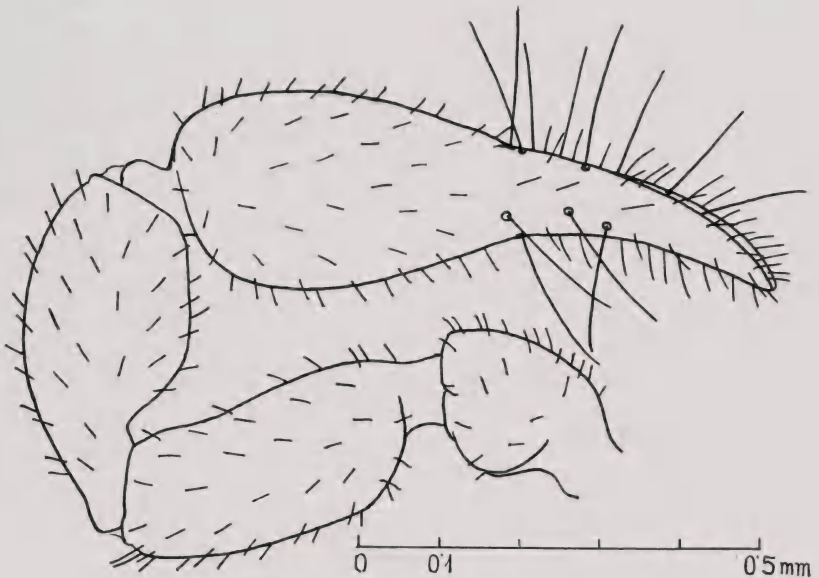


FIG. 2.—*Nesidiochernes scutulatus* n.sp. ♀, left pedipalp.

and scarcely $\frac{1}{3}$ closer to the posterior border than to the anterior furrow. Eye spots wanting. Abdominal tergites all broadly divided except the ultimate, very densely granulate; half tergites mostly with 7 posterior border bristles and 1 lateral border bristle, those of 10th segment with 3 posterior border bristles, 1 lateral border, 1 median border, and 1 discal bristle; ultimate tergite with 6 border bristles, 2 discal bristles, and 2 moderately long lateral tactile bristles; the bristles are pin like, dentate distally, not clavate. Abdominal tergites pale brownish; each half tergite in the proximal half with a large paler transverse spot; the third segment with 2 large paler transverse spots occupying almost the whole tergite and appearing as a pale transverse band; on the posterior segments is this spot divided into several smaller spots of unequal size, and the ultimate tergite has 8 small spots forming a transverse row. Palm of chelicera with 6 bristles. Galea with short lateral branches. Pedipalps coarsely granulate medially, with the vestitural bristles stiff, one-sided dentate, not clavate. Trochanteral tubercle round. Femur very abruptly pedicellate, 2.4 times, tibia 2.2 times, hand 2 times, chela with pedicel 3.3 times, without pedicel 3 times longer than broad; the hand is, therefore, relatively narrow. Fingers about as long as hand without pedicel, with accessory teeth well developed. Tactile setae *est*, *ist*, and *it* of fixed finger extraordinarily proximad, *it* still in the proximal half of finger and $1\frac{1}{2}$ times farther from finger-top than from *isb*, *ist* somewhat closer to *it* than to *isb*; tactile seta *t* of movable finger a little distad of the middle of the finger, *st* about half-way between *sb* and *t*. Hind tarsi without tactile bristle.

Body, length ♀ 2 mm; carapace, length 0.67 mm, breadth 0.55 mm; pedipalps: femur, length 0.44 mm, breadth 0.18 mm, tibia, length 0.44 mm, breadth 0.20 mm, hand, length 0.48 mm, breadth 0.24 mm, fingers, length 0.38 mm.

HOLOTYPE. 1 ♀, New Zealand, North Island, Hamilton, R. Nielson (Auckland Museum).

The new species differs very well from the related *N. zealandicus* Beier by the distribution of the pale spots on the top side, by the narrow palpal hand, longer fingers, and by the tactile seta *it* of the fixed finger standing much more proximad.

***Apatochernes turbotti* n.sp.** (Fig. 3)

Uniformly reddish brown, meso- and metazona of carapace only a little paler. Integument extraordinarily densely and finely granulate, grainlets of abdominal tergites somewhat transverse. Pleural membrane longitudinally striate-granulate. Vestitural bristles mostly short and moderately clavate. Carapace 1.2 times in the male, but only a little longer than broad posteriorly in the female, with two distinct but not very deep transverse furrows, the subbasal one twice as far from the anterior furrow as from the posterior margin. Eye spots wanting. Abdominal tergites divided except the ultimate; half tergites of the two anterior segments each with 5, the following with 6 (δ) to 7 (φ) posterior border bristles, onwards from 4th segment also with 1 lateral border bristle; half tergites of 10th segment with 2 posterior border bristles, 1 median border, 1 lateral border, and 1 discal bristle; 11th tergite with 6

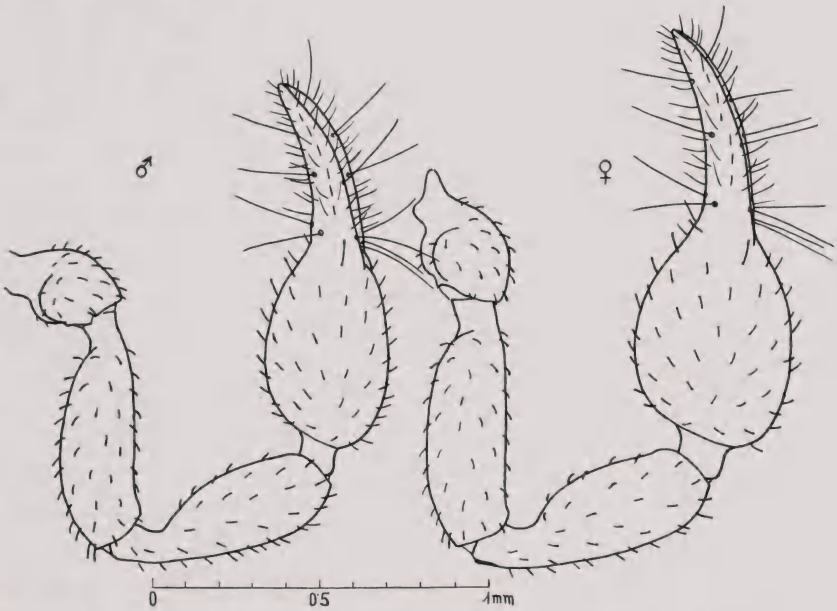


FIG. 3—*Apatochernes turbotti* n.sp. Right pedipalp of δ and φ .

border bristles and 2 discal bristles altogether, the discal and lateral border bristles elongate and distinctly clavate; bristles of the posterior segments successively longer. Half sternites mostly with 8, those of 10th segment with 6 border bristles; ultimate sternite with 4 (δ) to 6 (φ) border bristles and 2 discal bristles, the lateral border bristles elongate and slightly clavate. Palm of chelicera with 5 bristles, *SB* only dentate. Galea of the male almost simple, of the female with several terminal branches. Pedipalps moderately slender, with the medial and dorsal bristles short and distinctly clavate, and with the lateral and ventral bristles somewhat longer and mostly dentate only; mediobasal bristles of the hand elongate. Trochanteral tubercles round. Femur only very abruptly pedicellate, broadest distally, 3.2 times, tibia 2.8 times, hand 1.5 times (φ) to 1.8 times (δ), chela with pedicel 2.8 times (φ) to 3.3 times (δ), without pedicel 2.6 to 3 times longer than broad. Fingers as long as hand with pedicel (δ) or (φ) a little longer, each with about 60 teeth; fixed finger laterally with 8, medially with 3, movable one laterally with 9, medially with 2, accessory teeth. Disposition of tactile setae regular. Hind tarsus without tactile bristle.

Body, length ♂ 2 mm, ♀ 2.6 mm; carapace, length ♂ 0.76 mm, ♀ 0.86 mm, breadth ♂ 0.63 mm, ♀ 0.80 mm; pedipalps: ♂ femur, length 0.70 mm, breadth 0.22 mm, tibia, length 0.68 mm, breadth 0.24 mm, hand, length 0.68 mm, breadth 0.37 mm, fingers, length 0.58 mm; ♀ femur, length 0.74 mm, breadth 0.23 mm, tibia, length 0.73 mm, breadth 0.26 mm, hand, length 0.75 mm, breadth 0.47 mm, fingers, length 0.65 mm.

HOLOTYPE. 1 ♂, Three Kings Islands, South-West I., half-way down N.E. slope, karaka and puka in scrub, leaf litter sample 2, 13.I.1951, E. G. Turbott (Auckland Museum).

PARATYPES. 5 ♂ ♂, 1 ♀, from same locality (Auckland Museum and Museum Vienna).

The new species is distinguishable from the other species with 5 cheliceral palm-bristles (*pterodromae* and *antarcticus*) by the abdominal tergites uniformly reddish brown, the posterior transverse furrow of carapace much more basally, the pedipalps slenderer, the mediodistal bristles of palpal hand elongate, and the tactile seta *it* of the fixed finger farther distally. Very similar habitually to *A. obrieni* Beier, from which it differs by 5 cheliceral palm-bristles, unicolored abdominal tergites, shorter and stronger clavate vestitural bristles, longer palpal fingers, and by the subbasal transverse furrow of carapace much farther from anterior furrow.